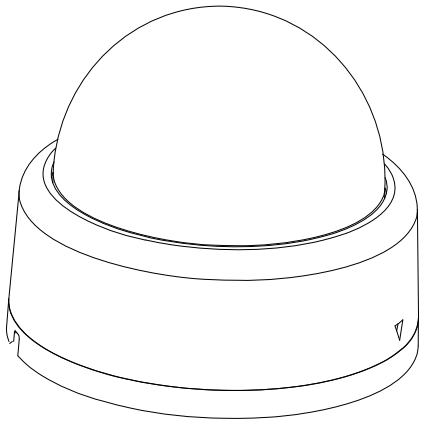
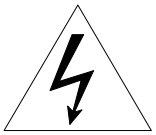


NM-IP100

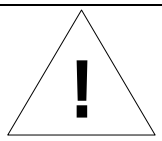
Installation Guide

INFORMATION TO USER

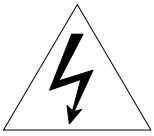


CAUTION

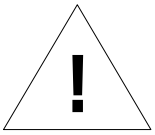
RISK OF ELECTRIC SHOCK,
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SEERIVCE PERSONEL.



This symbol is intended to alert the user to the presence of un-insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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1. FEATURES

Camera

- Indoor Fixed Mini Dome IP Camera
- High Quality Compression in real time streaming
- 1/4” VGA CMOS

Streaming

- Dual streaming mode (such as different codec/resolution/bit rate and so on.)
- De-interlacing on DSP
- Burnt-in text supported
- Unicast/Multicast supported

Video/Audio

- Video compression: H.264/MPEG4/MJPEG (30FPS@D1)
- Audio compression: G.711(µLaw, aLaw)/PCM
- Video Motion Detection supported
- 2-way mono audio supported

Network

- RTSP/ HTTP protocol supported
- 10/100 Base-T Ethernet

Additional Features

- Built-in Video Content Analysis
- OSD supported
- SDK (Software Development Kit) provided

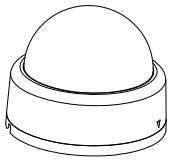
VCA (Video Content Analysis)

- VCA Presence (Included as basic)
- VCA Surveillance (Optional)

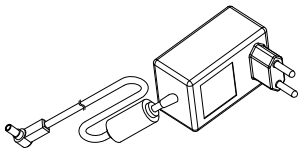
2. PACKAGE CONTENTS

Unpack carefully and handle the equipment with care. The packaging contains:

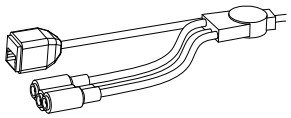
Camera



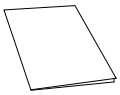
DC power adaptor



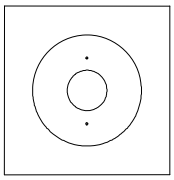
Extension cable
(for LAN, power connector, and audio)



Quick Installation Guide



Installation Template



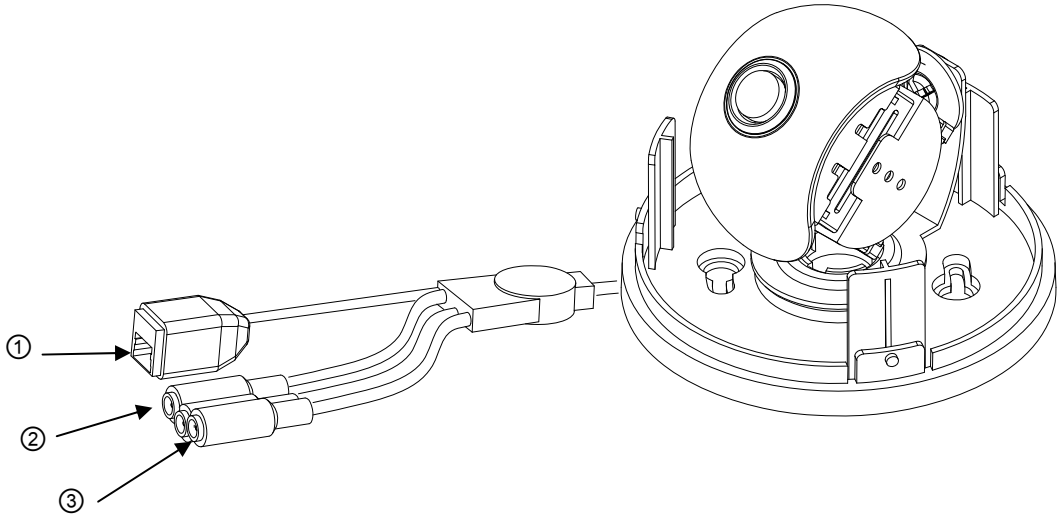
Screws and Anchor block

Hex wrench driver

Note

The above contents are subject to change without prior notice.

3. PART NAMES



* Models herein and their appearance are subject to change without any prior notice.

①LAN Connector (Ethernet)

This is a RJ45 LAN connector for 10/100 Base-T Ethernet.

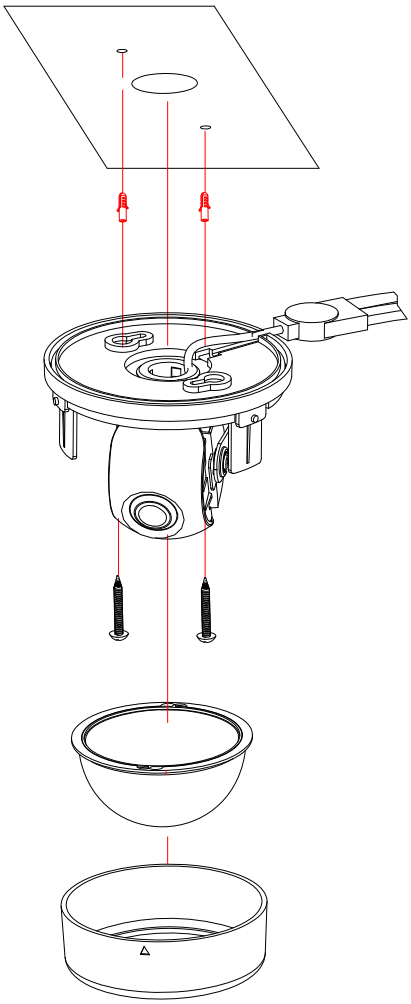
② Audio in/ out Cable

Thecamera has a mono audio input and a mono audio output.

③Power Adaptor Connector (DC 12V)

The camera requires a DC 12V 1A adapter for power supply.

4. INSTALLATION



1) Connect the LAN cable, power supply cable, and the video loop out cable with the camera.

2) Place the installation template on the ceiling.

3) Drill two holes on the template and insert anchor blocks into the holes. Fasten the camera with screws.

4) Put the dome cover on the main body of the camera. Make sure the main body and the cover fit each other into place.

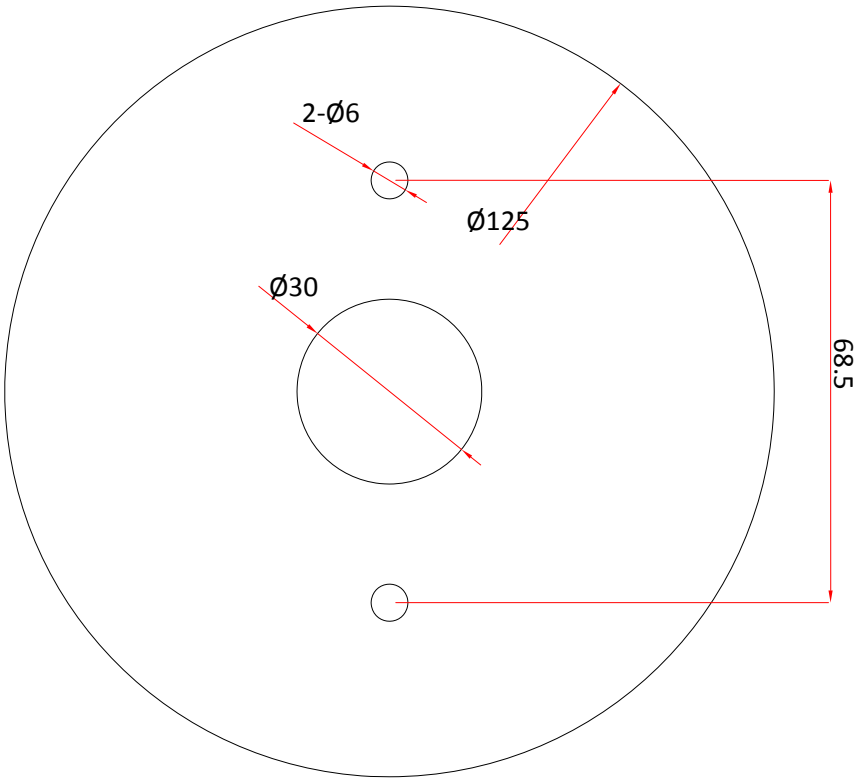
Note

When assembling the main body of the camera and its dome cover, make sure they fit each other into place.

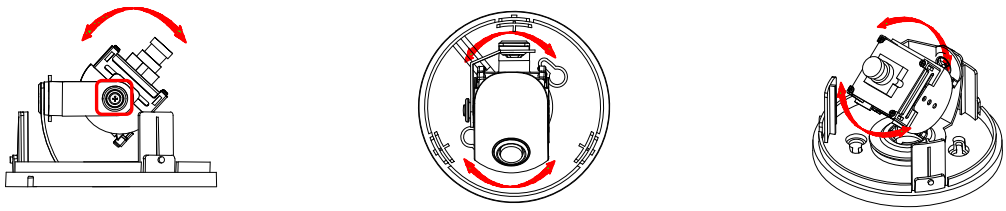
Caution

The camera may fall off the ceiling even after the proper installation and mounting. To prevent any accident, make sure the ceiling is firm and stable enough to support the camera. If any reinforcement is needed, consult with your safety personnel and proceed with the installation.

4.1. Installation Template

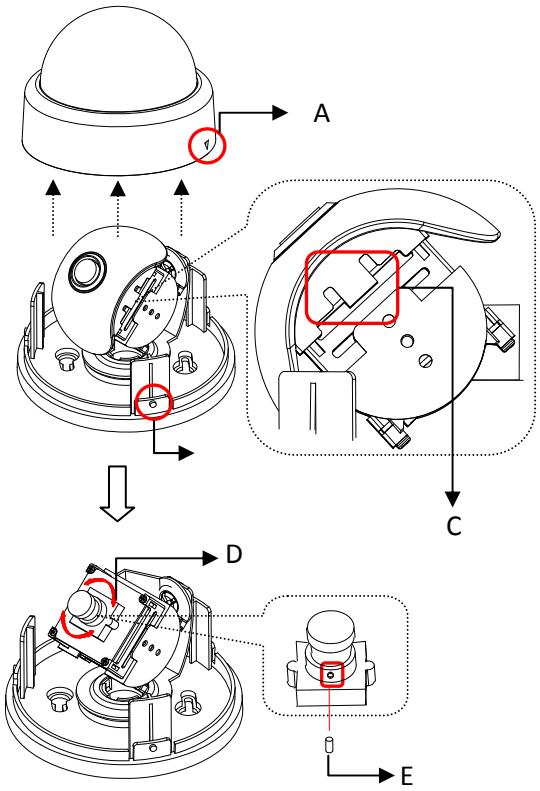


4.2. Manual adjustment for 3-axis movements



After installation, make a manual adjustment on the inner liner. Perform 3-axis movements manually by turning the inner liner to different directions as above, and check if it moves properly. After adjustment, fasten the screw of the rotation axis.

4.3. Lens Focus Adjustment



1) Open the dome cover from the device.

2) Uncover the latch(C) carefully to remove the lens cover.

3) Rotate the lens focus ring(D) to adjust the focus and fasten the screw(E) using the included hex wrench.

4) Push the lens cover to the module until the latch(C) clicks into position.

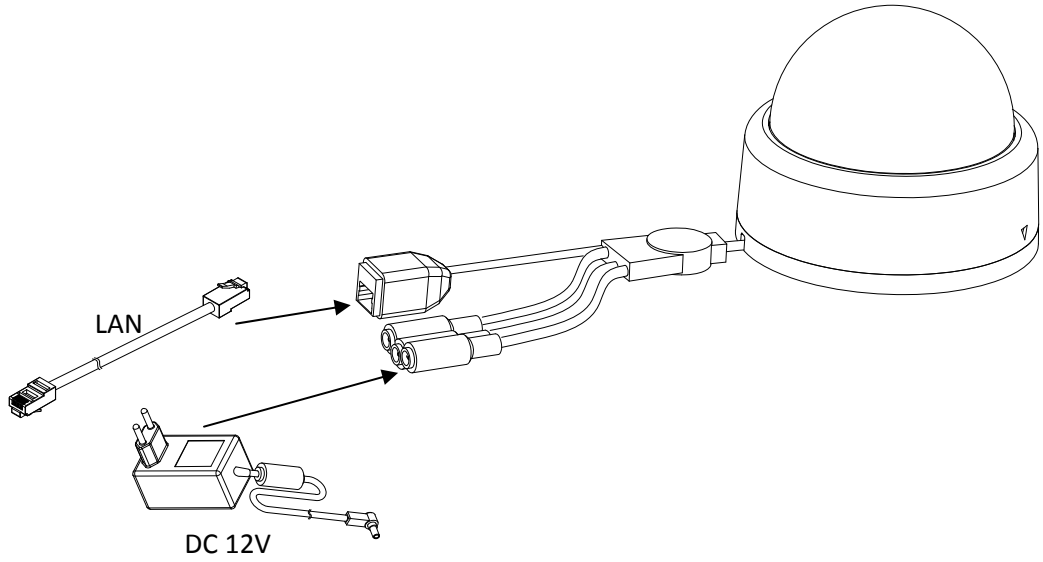
5) Attach the dome cover by aligning protrusion on the body (B) with the inverted triangle mark of the dome cover (A). Turn the dome cover clockwise to lock.

* Models herein and their appearance are subject to change without any prior notice.

4.4. Setting the Image Attribute

You can set the image attribute of camera through the webpage.
The menu of image attribute can be seen under **Setup > Video & Audio > Video-in > Attribute Setting**. Brightness, contrast, hue, saturation and sharpness can be adjusted.

5. CONNECTIONS



Caution

Make sure the polarity is correct. Incorrect connection may cause malfunction or damage to the IP device.

Caution

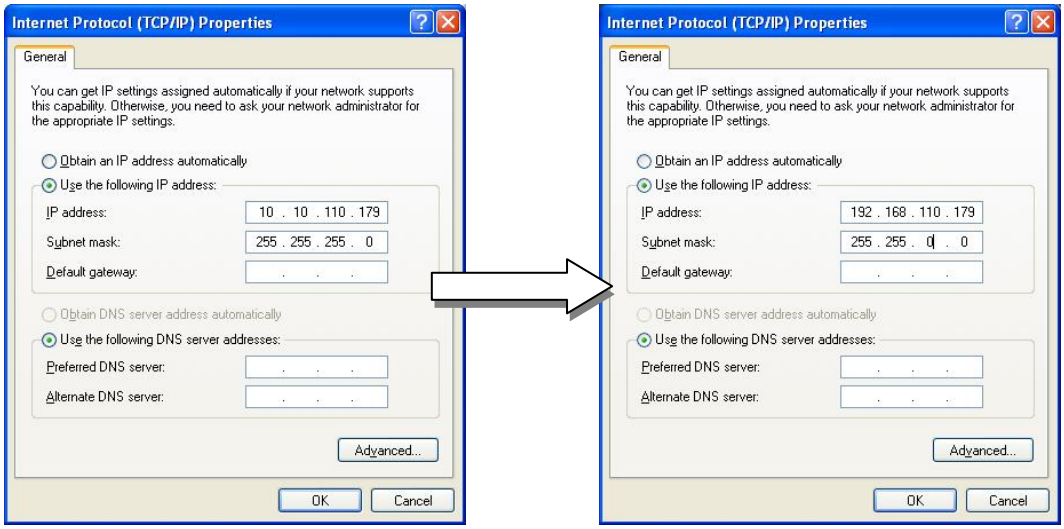
Power Adaptor Connector (DC 12V)

6. CONFIGURATION

6.1.Set up network environment

The default IP address of your IP device is 192.168.XXX.XXX. You can find the available IP address from the MAC address of your device. Please make sure the device and your PC are on the same network segment before running the installation. If the network segment between your PC and the device is different, change your PC's settings as below.

IP address : **192.168.xxx.xxx**
Subnet mask: **255.255.0.0**


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 10 . 10 . 110 . 179
Subnet mask: 255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel
Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 110 . 179
Subnet mask: 255 . 255 . 0 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

6.2.View video on web page

View the live video on a web page using your IP device and its IP address. You can use the IPAdminTool or enter the IP address on the web page.

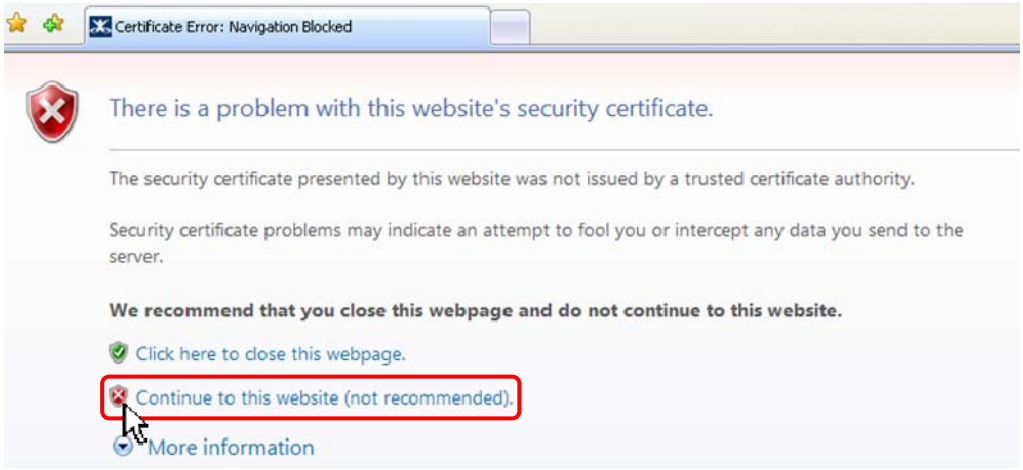
6.2.1.View video using IPAdmin Tool

IPAdminTool automatically searches all activated network encoders and IP cameras and shows the product name, IP address, MAC address and etc. IPAdminTool is provided with SDK at the following SDK path.

{SDK root}\BIN\TOOLS\AdminTool\

To use the IPAdminTool and view the live video on a web page:

1. Start IPAdminTool. Names and info of currently activated devices appear as a list.
2. Right-click on the desired device and select **Web view**.
3. Select **Continue to this website** on the Security Certificate Alert page.
   (The explanation and captured images at this manual are mainly on the basis of Internet Explorer 7.0)


Certificate Error: Navigation Blocked
There is a problem with this website's security certificate.
The security certificate presented by this website was not issued by a trusted certificate authority.
Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server.
We recommend that you close this webpage and do not continue to this website.
Click here to close this webpage.
Continue to this website (not recommended).
More information

4. Click **pop-up blocked** and install the ActiveX control by clicking the **Install** button. You need to install the ActiveX for displaying the images.

Internet Explorer - Security Warning
Do you want to install this software?
Name: AxAll.cab
Publisher: Cap Co
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

5. Wait for a few seconds while the web page loads. Then the live video is displayed on the main page of the web browser.

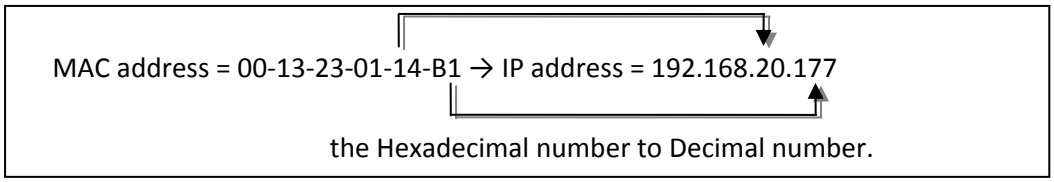
6. If the live video is not displayed and "**Can not Create XMLDOMDocument Install MSXML4.0**" message is shown as below, please download and Install from the link below.
   http://www.microsoft.com/downloads/details.aspx?familyid=3144B72B-B4F2-46DA-B4B6-C5D7485F2B42&displaylang=en
   (VCA Library requires MS XML 4.0 library which is an xml parser made by Microsoft.)

6.2.2.View video using IP address

View the live video on a web page using your IP device and its IP address. To have the correct IP address ready and use it on a web page:

1. Convert a MAC address to an IP address or check the IP address on the IPAdminTool.

(The MAC address is attached on the side or bottom of the device.)



2. Open a web browser and enter the IP address of the device.
3. Click **Continue to this website** on the Security Certificate Alert page.
4. Click **pop-up blocked** and install the ActiveX control. You need to install the ActiveX for displaying the images.
5. Wait for a few seconds while the web page loads. The live video is displayed.

6.3. Reset

Hardware Reset is **NOT** supported. (Software Reset is available.)
To perform the Software Reset, please refer to the "**HTTP API Manual**" provided for your encoder model.

6.4. Factory Default

Hardware Factory Reset is **NOT** supported. (Software Factory Reset is available.)
To perform the Software Factory Reset, please refer to the "**HTTP API Manual**" provided for your encoder model.

APPENDIX (A): SPECIFICATIONS

Summary

Camera Module		
CMOS	Image Sensor	1/4” VGA CMOS
	Effective Pixels	640 x 480
	Scanning system	Progressive Scan
	Horizontal Resolution	550 TV Lines
	Min. Illumination	3 Lux Color 0.1 Lux DSS On
Lens		Focal Length 3.6 mm, F.# 2.0, Board type, Lens for Security Camera
Shutter Speed		1/60 ~ 1/100,000
Day & Night		Not Supported
Video		
Compression Format		H.264, MPEG-4, MJPEG Selectable per Stream
Number of Streams		Dual Stream, Configurable
Resolution		D1[*1], 4CIF[*1], VGA, CIF, QCIF
Compression FPS		30 fps
Deinterlacing		Supported (DSP)
Motion Detection		Supported
OSD		Supported (DSP)
Burnt-in Text (Digital)		Supported (DSP)
Output		Not Available
Audio		
Input/output		1/1 channel
Compression Format		G.711
Function		
Digital Input/output		Not Supported
Network		10/100 Base-T
Power over Ethernet		Not Available
Protocol		TCP/IP, UDP/IP, HTTP, RTSP, RTCP, RTP/UDP, RTP/TCP, SNTP, mDNS, UPnP, SMTP, SOCK, IGMP, DHCP, FTP, DDNS, SSL v2/v3, IEEE 802.1X, SSH
Material		Polycarbonate
Dimensions		Housing: 124(D) x 100(H) mm, Dome: 100.0(Φ) mm
Color		Black

*1. These image sizes are scaled up resolutions.

Electrical Characteristics

Video Output	1Vp-p, 75Ω
Audio Input	Linein, 1.43Vp-p(Min 1.35Vp-p, max 1.49 Vp-p), 39 KΩ
Audio Output	Lineout, 46mW Power, 16 Ω
Power Source(Approx)	12 V DC 290 mA

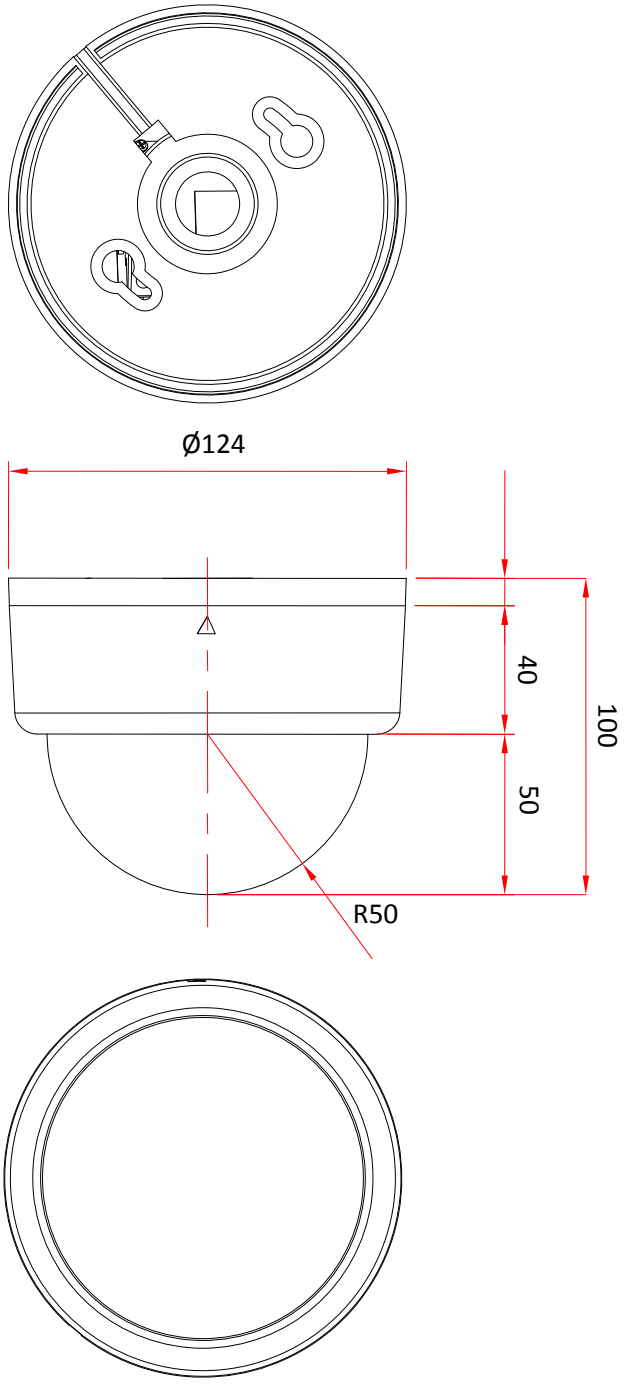
Environment Condition

Operating Temperature	0 ˚C ~ 50 ˚C (32˚F ~ 122 ˚F)
Operating Humidity	Up to 85% RH

VCA (Video Content Analysis)

VCA Presence (Included as Standard)	
High Performance	Advanced Tracking Algorithm, Low False Alarm Rate
Easy to Use	Intuitive Web Browser Interface
Detection Zones	Multi-segment Polygons and Lines
On-screen Display	Real-time Display of Tracking Data and Events
Burnt-in Annotation	Stream or Analog video out (※Analog video out support can vary depending on the device model and hardware version and the firmware version)
VCA Surveillance (Optional)	
Detection Behavior	Camera Tampering, Direction, Stopping, Loitering, Entering, Exiting, Appear, and Disappear Filters
3D Behavior	Perspective Corrected Size and Speed Filters
Statistics	Counting Functions and Other Statistics
Meta Data	Binary XML Format
Image Stabilization (Optional)	
Electronic Stabilization	Removes Camera Sway

APPENDIX (B): DIMENSIONS



(Unit: mm)

REVISION HISTORY

MAN#	DATE(M/D/Y)	Comments
01A.00	07/23/2009	Created.
02A.00	07/04/2009	FW 1.00.07 official release version
02A.01	08/06/2009	Added images to package contents
02A.02	08/24/2009	Added the requirement of VCA : MSXML4.0
02A.03	09/03/2009	Added Power Consumption Added Focus Adjustment
02A.04	09/25/2009	Added Setting the Image Attribute
02A.05	09/29/2009	Changed VCA specification
03A.00	10/13/2009	FW 1.02.02 official release version
03A.01	10/15/2009	Changed the Reset and Factory default description
03A.02	12/09/2009	Corrected Errata about Network Protocol Changed Image Sensor specification (1/3”-> 1/4” VGA CMOS) Added Description about up-scaled resolutions
03B.00	01/19/2010	Added Shutter Speed and reviewed
03B.01	02/25/2010	Modified for end users